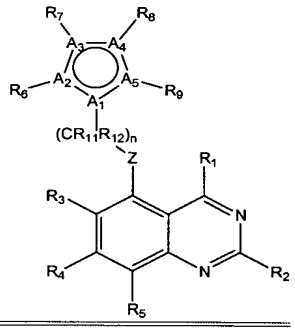
**Marked-up Paragraph**:

RELATED APPLICATIONS

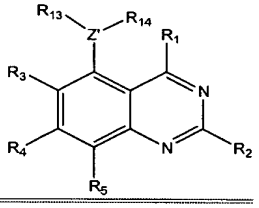
This application is a divisional of U.S. Serial No. 09/971,682, filed May 1, 1998, now U.S. Patent No. 6,204,267, which, in turn, ~~The present application~~ claims priority to U.S. Serial Numbers 60/060,152, filed September 26, 1997~~, entitled METHODS OF MODULATING SERINE /THREONINE PROTEIN KINASE FUNCTION WITH QUINAZOLINE BASED COMPOUNDS, by Tan et al. (Lyon & Lyon Docket No. 225/284)~~ and 60/045,351, filed May 2, 1997~~, entitled METHODS OF MODULATING SERINE/THREONINE PROTEIN KINASE FUNCTION WITH 5 SUBSTITUTED QUINAZOLINE COMPOUNDS, by Tang et al. (Lyon & Lyon Docket No. 223/249),~~, all of which are incorporated by reference herein in their entirety, including any drawings.

**Marked-up Claim**:

1. (Amended) A method of modulating the function of a serine/threonine protein kinase with a quinazoline-based compound ~~substituted five membered or six membered aryl or heteroaryl ring,~~ comprising the step of contacting cells expressing said serine/threonine kinase with said compound, or a pharmaceutically acceptable salt thereof, wherein said compound has the formula set forth in formula I or III:




(I)




(III)

wherein:

(a) Z is oxygen, $NX_1$, or sulfur, where $X_1$ is selected from the group consisting of hydrogen, saturated or unsaturated alkyl, and five-membered or six-membered heteroaryl or six-membered aryl ring moieties;

(b) n is 0, 1, 2, 3, or 4;

(c) $A_1$, $A_2$, $A_3$, $A_4$ and $A_5$ are independently selected from the group consisting of carbon, nitrogen, oxygen, and sulfur,

provided that if any of $A_1$, $A_2$, $A_3$, $A_4$ and$A_5$ is nitrogen, oxygen, or sulfur, said $A_1$, $A_2$, $A_3$, $A_4$ and $A_5$ is not substituted with $R_6$, $R_7$, $R_8$ or $R_9$;

(d) $R_1$, $R_2$, $R_3$, $R_4$, $R_5$, $R_6$, $R_7$, $R_8$ and $R_9$ are independently selected from the group consisting of:

(i) hydrogen;

(ii) saturated or unsaturated alkyl;

(iii) $NX_2X_3$, where $X_2$ and $X_3$ are independently selected from the group consisting of hydrogen, saturated or unsaturated alkyl, and five-membered or six-membered heteroaryl or six-membered aryl ring moieties;

(iv) halogen or trihalomethyl;

(v) a ketone of formula $-CO-X_4$, where $X_4$ is selected from the group consisting of hydrogen, alkyl, and five-membered or six-membered heteroaryl or six-membered aryl ring moieties;

(vi) a carboxylic acid of formula $-(X_5)_{n5}-COOH$ or ester of formula $-(X_6)_{n6}-COOX_7$, where $X_5$, $X_6$, and $X_7$ and are independently selected from the group consisting of alkyl and five-membered or six-membered heteroaryl or six-membered aryl ring moieties and where n5 and n6 are each independently 0 or 1;

(vii) an alcohol of formula $-(X_8)_{n8}-OH$ or an alkoxy moiety of formula $-(X_8)_{n8}-OX_9$, where $X_8$ and $X_9$ are independently selected from the group consisting of alkyl and five-membered or six-membered heteroaryl or six-membered aryl ring moieties and where n8 is 0 or 1, and where said ring moieties are optionally substituted with one or more substituents selected from the group consisting of alkyl, halogen, trihalomethyl, carboxylate, and ester;

(viii) $-NHCOX_{10}$, where $X_{10}$ is selected from the group consisting of alkyl, hydroxyl, and five-membered or six-membered heteroaryl or six-membered aryl ring moieties, wherein said ring moieties are optionally substituted with one or more substituents selected from the group consisting of alkyl, halogen, trihalomethyl, carboxylate, and ester;

(ix) $-SO_2NX_{11}X_{12}$, where $X_{11}$ and $X_{12}$ are selected from the group consisting of hydrogen, alkyl, and five-membered or six-membered heteroaryl or six-membered aryl ring moieties; and

(x) a five-membered or six-membered heteroaryl or six-membered aryl ring moiety optionally substituted with one or more substituents selected from the group consisting of alkyl, halogen, trihalomethyl, carboxylate, and ester moieties;

(e) any adjacent $R_3$, $R_4$, and $R_5$ or any adjacent $R_6$, $R_7$, $R_8$, and $R_9$ are fused together to

form a five-membered or six-membered heteroaryl or six-membered aryl ring moiety, wherein said five-membered or six-membered heteroaryl or six-membered aryl ring comprises two carbon atoms of quinozaline ring to which $R_3$, $R_4$, and $R_5$ or $R_6$, $R_7$, $R_8$, and $R_9$ are attached; and

(f) $R_{11}$ and $R_{12}$ are independently selected from the group consisting of

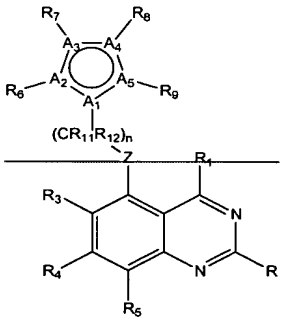
(i) hydrogen;

(ii) saturated or unsaturated alkyl; and

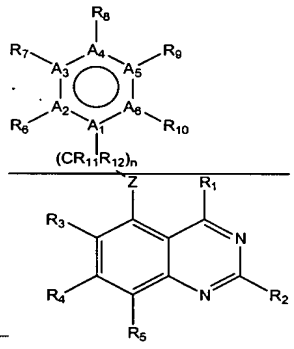
(g) Z' is carbon, oxygen, sulfur, or nitrogen and $R_{13}$ and $R_{14}$ taken together form a five-membered or six-membered heteroaryl ring with Z' as a ring member.

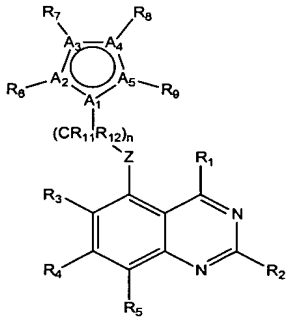
11. (Amended) The method of claim 1, wherein said quinazoline-based compound has the formula set forth in structure I~~, II,~~ or III:

(I)

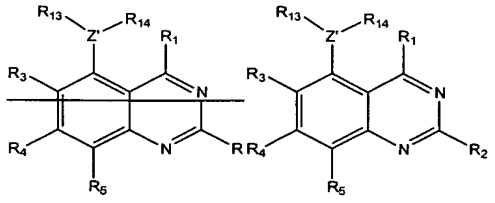


~~(II)~~





(III)



wherein:

(a) Z is oxygen, $NX_1$, or sulfur, where $X_1$ is selected from the group consisting of hydrogen, saturated or unsaturated alkyl;

(b) n is 0, 1, 2;

(c) $A_1$, $A_2$, $A_3$, $A_4$~~,~~ and $A_5$~~, and $A_6$~~ are independently selected from the group consisting of carbon, nitrogen, oxygen, and sulfur,

provided that if any of $A_1$, $A_2$, $A_3$, $A_4$ and $A_5$ is nitrogen, oxygen, or sulfur, said $A_1$, $A_2$, $A_3$, $A_4$ and $A_5$ is not substituted with $R_6$, $R_7$, $R_8$ or $R_9$;

(d) $R_1$ and $R_2$ are independently selected from the group consisting of:

(i) hydrogen;

(ii) saturated or unsaturated alkyl;

(iii) $NX_2X_3$, where $X_2$ and $X_3$ are independently selected from the group consisting of hydrogen and saturated or unsaturated alkyl; ~~and~~

(iv) halogen or trihalomethyl; and

(v) five-membered or six-membered heteroaryl ring moiety;

(e) $R_3$, $R_4$, $R_5$, $R_6$, $R_7$, $R_8$~~,~~ and $R_9$~~ and $R_{10}$~~ are independently selected from the group consisting of:

(i) hydrogen;

(ii) saturated or unsaturated alkyl;

(iii) $NX_4X_5$, where $X_4$ and $X_5$ are independently selected from the group consisting of hydrogen and saturated or unsaturated alkyl; ~~and~~

(iv) halogen or trihalomethyl; and

(v) $-OX_7$, where $X_7$ is selected from the group consisting of hydrogen, saturated or unsaturated alkyl, and a five-membered or six-membered aryl or hetereoaryl ring moiety;

(f) any adjacent $R_3$, $R_4$, and $R_5$ or any adjacent $R_6$, $R_7$, $R_8$~~,~~ and $R_9$~~ and $R_{10}$~~ are fused together to form a five-membered or six-membered aryl or hetereoaryl ring moiety, wherein said five-membered or six-membered aryl or six-membered heteroaryl ring comprises two carbon atoms of the quinazoline ring to which $R_3$, $R_4$, and $R_5$ or $R_6$, $R_7$, $R_8$, and $R_9$ are attached;

(g) $R_{11}$ and $R_{12}$ are independently selected from the group consisting of

(i) hydrogen;

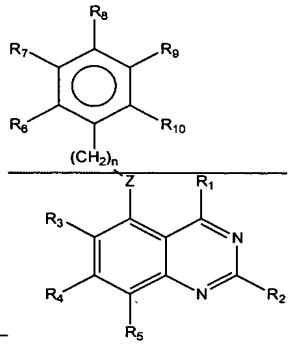
(ii) saturated or unsaturated alkyl; and

(h) Z' is carbon, oxygen, sulfur, or nitrogen and $R_{13}$ and $R_{14}$ taken together form a five-membered or six-membered heteroaryl ring with Z' as a ring member, wherein said ring

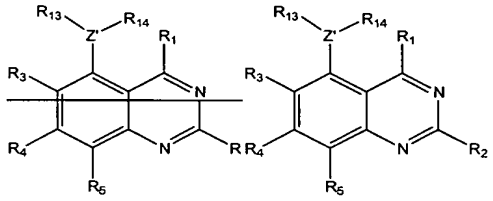
is optionally substituted with one, two, or three alkyl, halogen, trihalomethyl, carboxylate, and ester moieties.

12. (Amended) The method of claim 1, wherein said quinazoline-based compound has the formula set forth in formula ~~IV or~~ V:

~~(IV)~~



(V)



wherein:

(a) Z is oxygen or sulfur;

(b) n is 0 or 1;

(c) $R_1$ and $R_2$ are independently selected from the group consisting of:

(i) hydrogen;

(ii) $NX_1X_2$, where $X_1$ and $X_2$ are independently selected from the group consisting of hydrogen and saturated or unsaturated alkyl;

(iii) benzyl;

(d) $R_3$, $R_4$, and $R_5$ are independently selected from the group consisting of:

(i) hydrogen; and

(ii) saturated or unsaturated alkyl;

(iii) $NX_3X_4$, where $X_3$ and $X_4$ are independently selected from the group consisting of hydrogen and saturated or unsaturated alkyl; and

~~(e) $R_6$, $R_7$, $R_8$, $R_9$, and $R_{10}$ are independently selected from the group consisting of~~

~~(i) hydrogen;~~

~~(ii) saturated or unsaturated alkyl;~~

~~(iii) $NX_5X_6$, where $X_5$ and $X_6$ are independently selected from the group consisting of hydrogen and saturated or unsaturated alkyl; and~~

~~(iv) halogen or trihalomethyl;~~

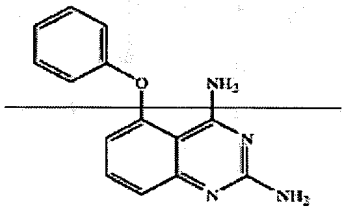
~~(v) $C(X_7)_3$, where $X_7$ is selected from the group consisting of fluorine, chlorine, bromine, and iodine; and~~

~~(vi) methoxy;~~

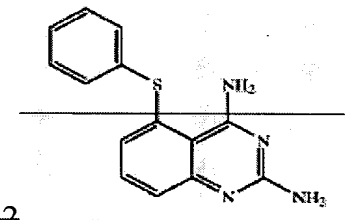
(~~f~~e) $R_{11}$ and $R_{12}$ hydrogen; and

(~~g~~f) Z' is nitrogen and $R_{13}$ and $R_{14}$ taken together form a five-membered heteroaryl ring.

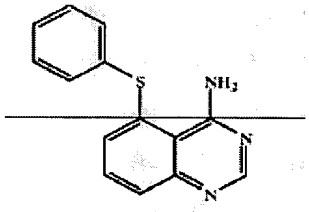
16. (Amended) The method of claim 1, wherein said quinazoline-based compound is ~~selected from the group consisting of~~:



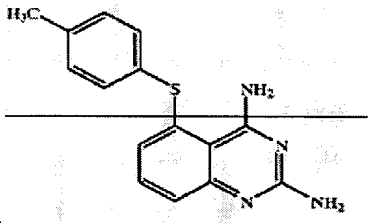
~~A-1~~



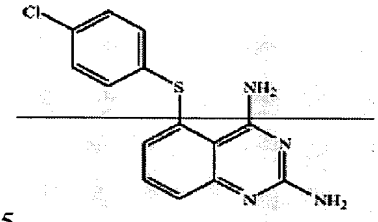
~~A-2~~



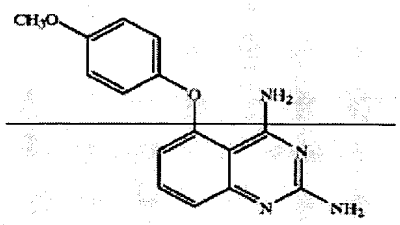
~~A-3~~



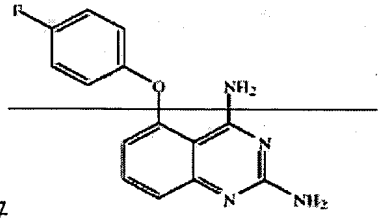
~~A-4~~



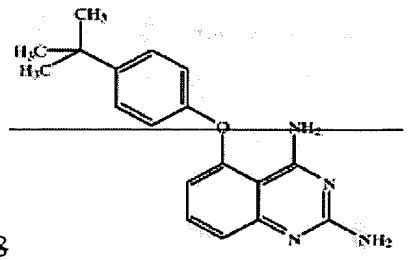
~~A-5~~



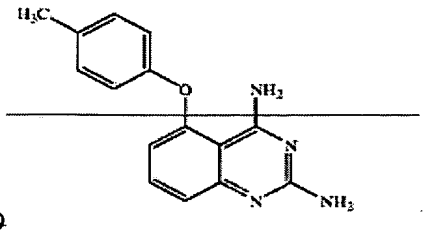
~~A-6~~



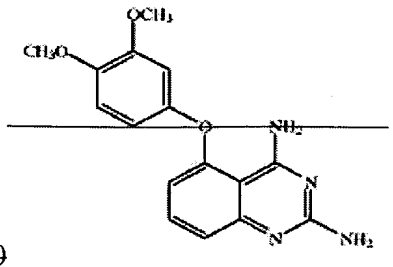
~~A-7~~



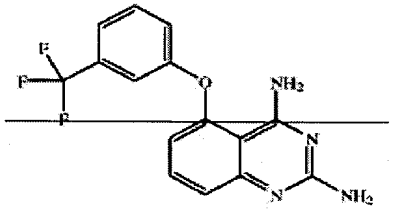
~~A-8~~



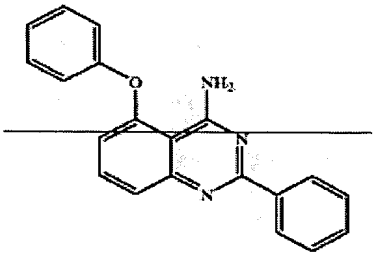
~~A-9~~



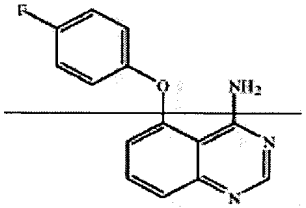
~~A-10~~



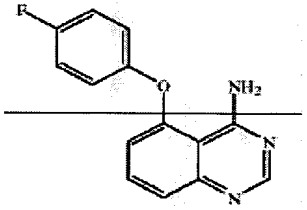
~~A-11~~



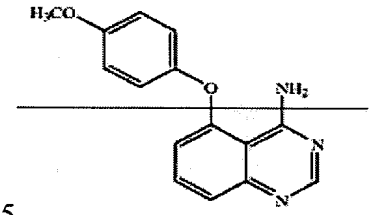
~~A-12~~



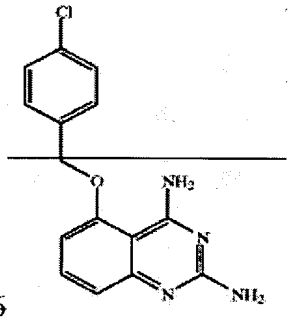
~~A-13~~



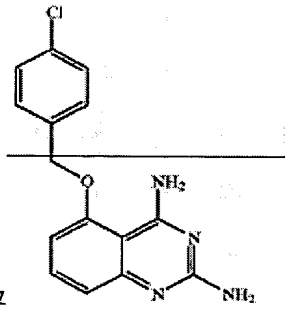
~~A-14~~



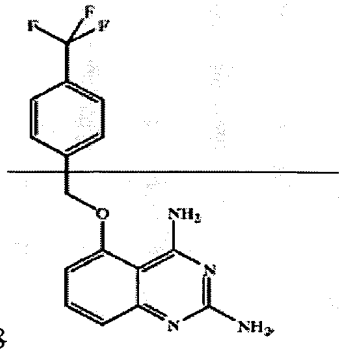
~~A-15~~



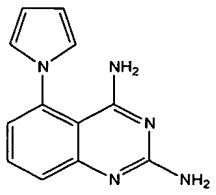
~~A-16~~



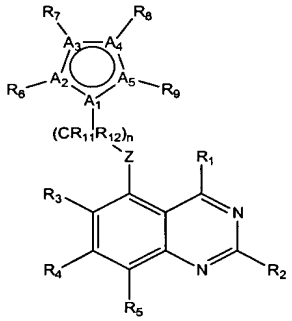
~~A-17~~

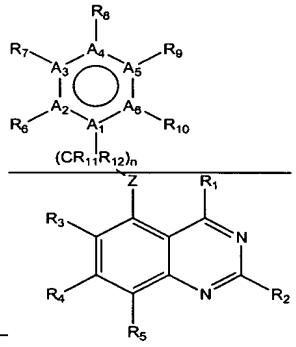


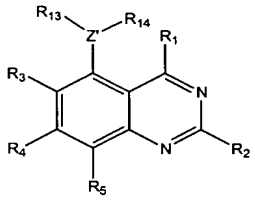
~~A-18~~

A-19 

17. (Amended) A method of preventing or treating an abnormal condition in an organism, comprising the step of administering a quinazoline-based compound of formula I, ~~II,~~ or III to said organism:

(I) 

~~(II)~~ 

(III) 

wherein:

(a) Z is oxygen, $NX_1$, or sulfur, where $X_1$ is selected from the group consisting of hydrogen, saturated or unsaturated alkyl, and five-membered or six-membered heteroaryl or six-membered aryl ring moieties;

(b) n is 0, 1, 2, 3, or 4;

(c) $A_1$, $A_2$, $A_3$, $A_4$, ~~and~~ and $A_5$, ~~and $A_6$~~ are independently selected from the group consisting of carbon, nitrogen, oxygen, and sulfur,

provided that if any of $A_1$, $A_2$, $A_3$, $A_4$ and $A_5$ is nitrogen, oxygen, or sulfur, said $A_1$, $A_2$, $A_3$, $A_4$ and $A_5$ is not substituted with $R_6$, $R_7$, $R_8$ or $R_9$;

(d) $R_1$, $R_2$, $R_3$, $R_4$, $R_5$, $R_6$, $R_7$, $R_8$, ~~and~~ and $R_9$, ~~and $R_{10}$~~ are independently selected from the group consisting of:

(i) hydrogen;

(ii) saturated or unsaturated alkyl;

(iii) $NX_2X_3$, where $X_2$ and $X_3$ are independently selected from the group consisting of hydrogen, saturated or unsaturated alkyl, and five-membered or six-membered heteroaryl or six-membered aryl ring moieties;

(iv) halogen or trihalomethyl;

(v) a ketone of formula $-CO-X_4$, where $X_4$ is selected from the group consisting of hydrogen, alkyl, and five-membered or six-membered heteroaryl or six-membered aryl ring moieties;

(vi) a carboxylic acid of formula $-(X_5)_{n5}-COOH$ or ester of formula $-(X_6)_{n6}-COOX_7$, where $X_5$, $X_6$, and $X_7$ and are independently selected from the group consisting of alkyl and five-membered or six-membered heteroaryl or six-membered aryl ring moieties and where n5 and n6 are each independently 0 or 1;

(vii) an alcohol of formula $-(X_8)_{n8}-OH$ or an alkoxy moiety of formula $-(X_8)_{n8}-OX_9$, where $X_8$ and $X_9$ are independently selected from the group consisting of alkyl and five-membered or six-membered heteroaryl or six-membered aryl ring moieties and where n8 is 0 or 1, and where said ring moieties are optionally substituted with one or more substituents selected from the group consisting of alkyl, halogen, trihalomethyl, carboxylate, and ester;

(viii) $-NHCOX_{10}$, where $X_{10}$ is selected from the group consisting of alkyl, hydroxyl, and five-membered or six-membered heteroaryl or six-membered aryl ring moieties, wherein said ring moieties are optionally substituted with one or more substituents selected from the group consisting of alkyl, halogen, trihalomethyl, carboxylate, and ester;

(ix) $-SO_2NX_{11}X_{12}$, where $X_{11}$ and $X_{12}$ are selected from the group consisting of hydrogen, alkyl, and five-membered or six-membered heteroaryl or six-membered aryl ring moieties; and

(x) a five-membered or six-membered heteroaryl or six-membered aryl ring moiety optionally substituted with one or more substituents selected from the group consisting of alkyl, halogen, trihalomethyl, carboxylate, and ester moieties;

(e) any adjacent $R_3$, $R_4$, and $R_5$ or any adjacent $R_6$, $R_7$, $R_8$, and $R_9$ are fused together to form a five-membered or six-membered heteroaryl or six-membered aryl ring moiety, wherein said five-membered or six-membered heteroaryl or six-membered aryl ring comprises two carbon atoms of the quinozaline ring to which $R_3$, $R_4$, and $R_5$ or $R_6$, $R_7$, $R_8$, and $R_9$ are attached; and

(f) $R_{11}$ and $R_{12}$ are independently selected from the group consisting of

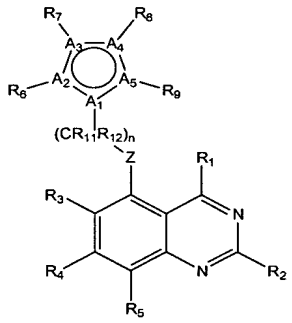
(i) hydrogen;

(ii) saturated or unsaturated alkyl; and

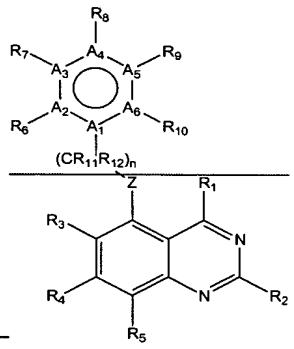
(g) Z' is carbon, oxygen, sulfur, or nitrogen and $R_{13}$ and $R_{14}$ taken together form a five-membered or six-membered heteroaryl ring with Z' as a ring member.

26. (Amended) A quinazoline compound having the formula I~~, II,~~ or III:

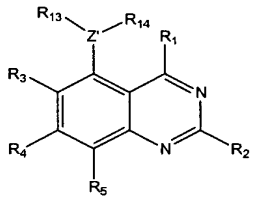
(I)



~~(II)~~



(III)



wherein:

(i) Z is oxygen, $NX_1$, or sulfur, where $X_1$ is selected from the group consisting of hydrogen, saturated or unsaturated alkyl, and five-membered or six-membered heteroaryl or six-membered aryl ring moieties;

(ii) n is 0, 1, 2, 3, or 4;

(iii) $A_1$, $A_2$, $A_3$, $A_4$~~,~~ and $A_5$~~, and $A_6$~~ are independently selected from the group consisting of carbon, nitrogen, oxygen, and sulfur,

provided that if any of $A_1$, $A_2$, $A_3$, $A_4$ and $A_5$ is nitrogen, oxygen, or sulfur, said $A_1$, $A_2$, $A_3$, $A_4$ and $A_5$ is not substituted with $R_6$, $R_7$, $R_8$ or $R_9$;

(iv) $R_1$ and $R_2$ are independently selected from the group consisting of:

(a) hydrogen;

(b) saturated or unsaturated alkyl;

(c) $NX_2X_3$, where $X_2$ and $X_3$ are independently selected from the group consisting of hydrogen and saturated or unsaturated alkyl; ~~and~~

(d) halogen or trihalomethyl; and

(e) five-membered or six-membered heteroaryl ring moiety;

(v) $R_3$, $R_4$, $R_5$, $R_6$, $R_7$, $R_8$, and $R_9$ ~~and $R_{10}$~~ are independently selected from the group consisting of:

(a) hydrogen~~, provided that at least one of $R_3$, $R_4$, $R_5$, $R_6$, $R_7$, $R_8$, $R_9$ and $R_{10}$ is a non-hydrogen moiety if $R_2$ is $-NH_2$~~;

(b) saturated or unsaturated alkyl~~, wherein said $R_8$ is not methyl when $R_2$ is $-NH_2$ and when n = 1~~;

(c) $NX_{13}X_{14}$, where $X_{13}$ and $X_{14}$ are independently selected from the group consisting of hydrogen, saturated or unsaturated alkyl, and five-membered or six-membered aryl or heteroaryl ring moieties; ~~and~~

(d) halogen or trihalomethyl~~, wherein said $R_8$ is not chlorine or fluorine when $R_2$ is $-NH_2$ and when n = 1~~;

(e) a ketone of formula $-CO-X_4$, where $X_4$ is selected from the group consisting of hydrogen, alkyl, and five-membered or six-membered heteroaryl or six-membered aryl ring moieties;

(f) a carboxylic acid of formula $-(X_5)_{n5}-COOH$ or ester of formula $-(X_6)_{n6}-COOX_7$, where $X_5$, $X_6$, and $X_7$ and are independently selected from the group consisting of alkyl and five-membered or six-membered heteroaryl or six-membered aryl ring moieties and where n5 and n6 are each independently 0 or 1;

(g) an alcohol of formula $-(X_8)_{n8}-OH$ or an alkoxy moiety of formula $-(X_8)_{n8}-OX_9$, where $X_8$ and $X_9$ are independently selected from the group consisting of alkyl and five-membered or six-membered heteroaryl or six-membered aryl ring moieties and where n8 is 0 or 1, and where said ring moieties are optionally substituted with one or more substituents selected from the group consisting of alkyl, halogen, trihalomethyl, carboxylate, and ester;

(h) $-NHCOX_{10}$, where $X_{10}$ is selected from the group consisting of alkyl, hydroxyl, and five-membered or six-membered heteroaryl or six-membered aryl ring moieties, wherein said ring moieties are optionally substituted with one or more substituents selected from the group consisting of alkyl, halogen, trihalomethyl, carboxylate, and ester;

(i) $-SO_2NX_{11}X_{12}$, where $X_{11}$ and $X_{12}$ are selected from the group consisting of hydrogen, alkyl, and five-membered or six-membered heteroaryl or six-membered aryl ring moieties; and

(j) a five-membered or six-membered heteroaryl or six-membered aryl ring moiety optionally substituted with one or more substituents selected from the group consisting of alkyl, halogen, trihalomethyl, carboxylate, and ester moieties;

(vi) any adjacent $R_3$, $R_4$, and $R_5$ or any adjacent $R_6$, $R_7$, $R_8$, and $R_9$ are fused together to form a five-membered or six-membered heteroaryl or six-membered aryl ring moiety, wherein said five-membered or six-membered heteroaryl or six-membered aryl ring comprises two carbon atoms of the quinozaline ring to which $R_3$, $R_4$, and $R_5$ or $R_6$, $R_7$, $R_8$, and $R_9$ are attached;

(vii) $R_{11}$ and $R_{12}$ are independently selected from the group consisting of

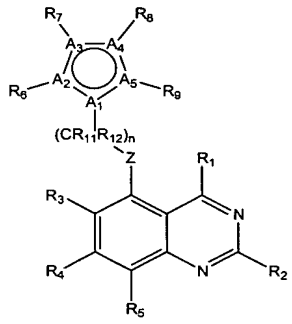
(i) hydrogen;

(ii) saturated or unsaturated alkyl; and

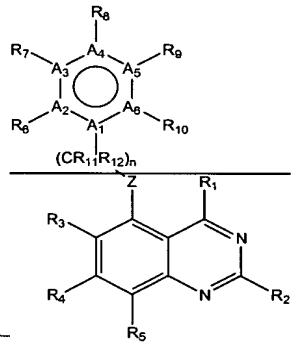
(viii) Z' is carbon, oxygen, sulfur, or nitrogen and $R_{13}$ and $R_{14}$ taken together form a five-membered or six-membered heteroaryl ring with Z' as a ring member.

27. (Amended) A quinazoline compound having the formula I, ~~II,~~ or III:

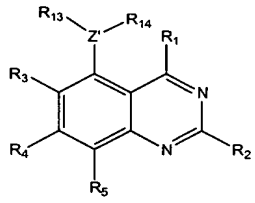
(I)



~~(II)~~



(III)



wherein:

(a) Z is oxygen, $NX_1$, or sulfur, where $X_1$ is selected from the group consisting of hydrogen, saturated or unsaturated alkyl;

(b) n is 0, 1, 2;

(c) $A_1$, $A_2$, $A_3$, $A_4$, and $A_5$, ~~and $A_6$~~ are independently selected from the group consisting of carbon, nitrogen, oxygen, and sulfur,

provided that if any of $A_1$, $A_2$, $A_3$, $A_4$ and $A_5$ is nitrogen, oxygen, or sulfur, said $A_1$, $A_2$, $A_3$, $A_4$ and $A_5$ is not substituted with $R_6$, $R_7$, $R_8$ or $R_9$;

(d) $R_1$ and $R_2$ are independently selected from the group consisting of:

(i) hydrogen;

(ii) saturated or unsaturated alkyl;

(iii) $NX_2X_3$, where $X_2$ and $X_3$ are independently selected from the group consisting of hydrogen and saturated or unsaturated alkyl; ~~and~~

(iv) halogen or trihalomethyl; and

(v) five-membered or six-membered heteroaryl ring moiety;

(e) $R_3$, $R_4$, $R_5$, $R_6$, $R_7$, $R_8$, and $R_9$ ~~and $R_{10}$~~ are independently selected from the group consisting of:

(i) hydrogen~~, provided that at least one of $R_3$, $R_4$, $R_5$, $R_6$, $R_7$, $R_8$, $R_9$ and $R_{10}$ is a non-hydrogen moiety if $R_2$ is $-NH_2$~~;

(ii) saturated or unsaturated alkyl~~, wherein said $R_8$ is not methyl when $R_2$ is $-NH_2$ and when n = 1~~;

(iii) $NX_4X_5$, where $X_4$ and $X_5$ are independently selected from the group consisting of hydrogen and saturated or unsaturated alkyl; ~~and~~

(iv) halogen or trihalomethyl~~, wherein said $R_8$ is not chlorine or fluorine when $R_2$ is $-NH_2$ and when n = 1~~;

(v) $C(X_6)_3$, where $X_6$ is selected from the group consisting of fluorine, chlorine, bromine and iodine;

(vi) $-OX_7$, where $X_7$ is selected from the group consisting of hydrogen, saturated or unsaturated alkyl, and a five-membered or six-membered aryl or hetereoaryl ring moiety;

(f) any adjacent $R_3$, $R_4$, and $R_5$ or any adjacent $R_6$, $R_7$, $R_8$, and $R_9$ ~~and $R_{10}$~~ are fused together to form a five-membered or six-membered aryl or hetereoaryl ring moiety, wherein said five-membered or six-membered aryl or six-membered heteroaryl ring comprises two carbon atoms of the quinazoline ring to which $R_3$, $R_4$, and $R_5$ or $R_6$, $R_7$, $R_8$, and $R_9$ are attached;

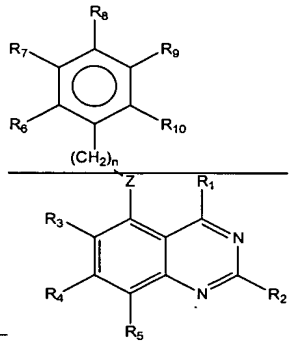
(g) $R_{11}$ and $R_{12}$ are independently selected from the group consisting of

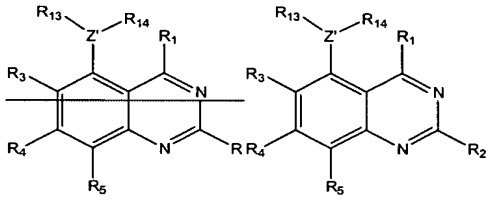
(i) hydrogen;

(ii) saturated or unsaturated alkyl; and

(h) Z' is carbon, oxygen, sulfur, or nitrogen and $R_{13}$ and $R_{14}$ taken together form a five-membered or six-membered heteroaryl ring with Z' as a ring member, wherein said ring is optionally substituted with one, two, or three alkyl, halogen, trihalomethyl, carboxylate, and ester moieties.

28. (Amended) A quinazoline compound having the structure set forth in formula ~~IV or~~ V:

~~(IV)~~ 

(V) 

wherein:

(a) Z is oxygen or sulfur;

(b) n is 0 or 1;

(c) $R_1$ and $R_2$ are independently selected from the group consisting of:

(i) hydrogen;

(ii) $NX_1X_2$, where $X_1$ and $X_2$ are independently selected from the group consisting of hydrogen and saturated or unsaturated alkyl;

(iii) benzyl;

(d) $R_3$, $R_4$, and $R_5$ are independently selected from the group consisting of:

(i) hydrogen; ~~and~~

(ii) saturated or unsaturated alkyl; and

(iii) $NX_3X_4$, where $X_3$ and $X_4$ are independently selected from the group consisting of hydrogen and saturated or unsaturated alkyl;

~~(e) $R_3$, $R_4$, $R_5$, $R_6$, $R_7$, $R_8$, $R_9$, and $R_{10}$ are independently selected from the group consisting of~~

~~(i) hydrogen provided that at least one of $R_3$, $R_4$, $R_5$, $R_6$, $R_7$, $R_8$, $R_9$, and $R_{10}$ is a non-hydrogen moiety if $R_2$ is $-NH_2$;~~

~~(ii) saturated or unsaturated alkyl, wherein said $R_8$ is not methyl when $R_2$ is $-NH_2$ and when n = 1;~~

~~(iii) $NX_5X_6$, where $X_5$ and $X_6$ are independently selected from the group consisting of hydrogen and saturated or unsaturated alkyl; and~~

~~(iv) halogen or trihalomethyl, wherein said $R_8$ is not chlorine or fluorine when $R_2$ is $-NH_2$ and when n = 1;~~

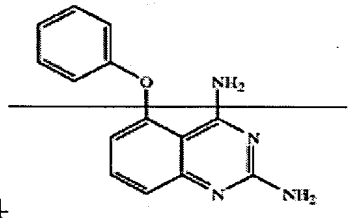
~~(v) $C(X_7)_3$, where $X_7$ is selected from the group consisting of fluorine, chlorine, bromine, and iodine; and~~

~~(vi) methoxy;~~

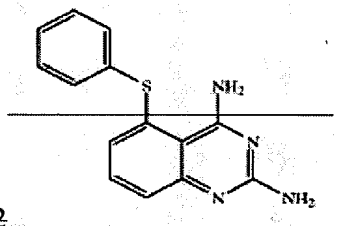
(~~f~~e) $R_{11}$ and $R_{12}$ hydrogen; and

(~~g~~f) Z' is nitrogen and $R_{13}$ and $R_{14}$ taken together form a five-membered heteroaryl ring.

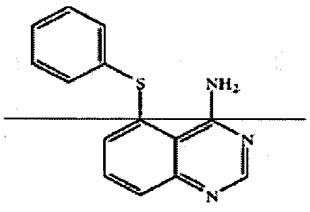
32. (Amended) A quinazoline compound which is ~~selected from the group consisting of~~:



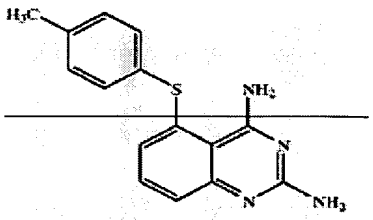

~~A-1~~



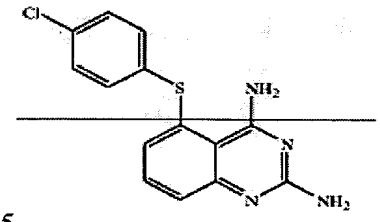

~~A-2~~



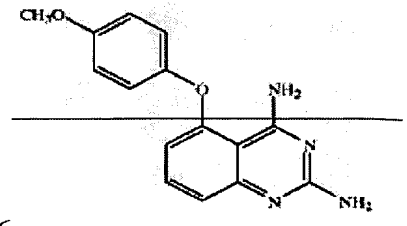

~~A-3~~



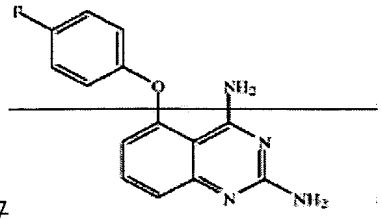

~~A-4~~



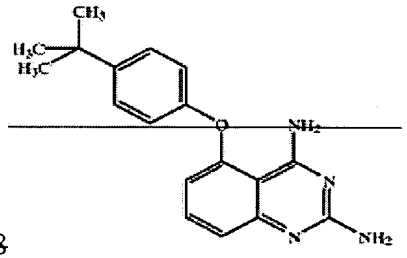

~~A-5~~



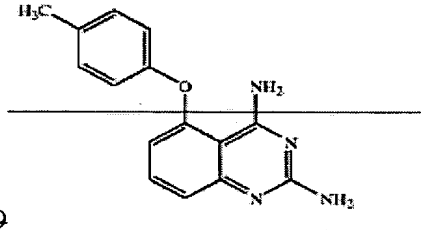

~~A-6~~



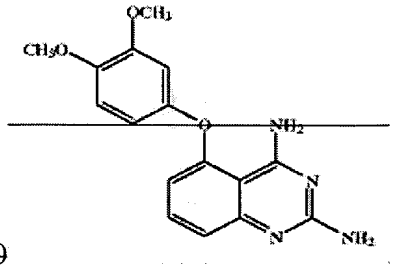
~~A-7~~



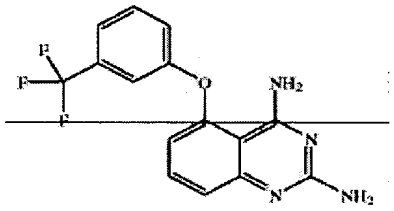
~~A-8~~



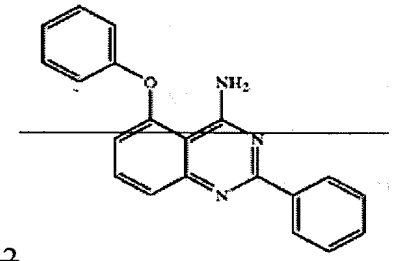
~~A-9~~



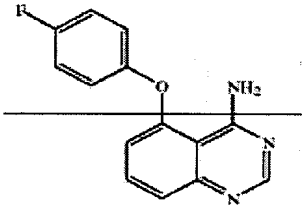
~~A-10~~



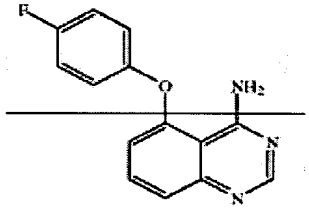
~~A-11~~



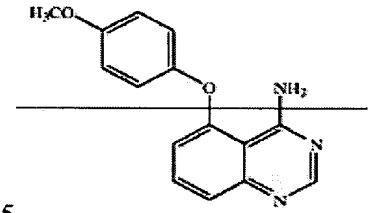
~~A-12~~



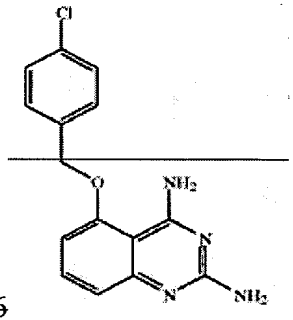
~~A-13~~



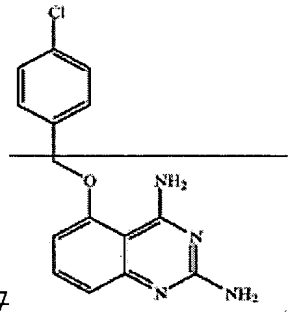
~~A-14~~



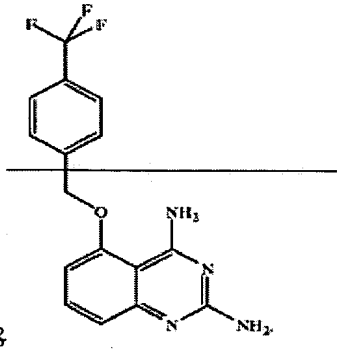
~~A-15~~



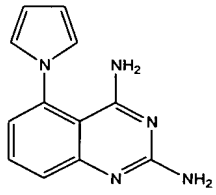
~~A-16~~



~~A-17~~



~~A-18~~

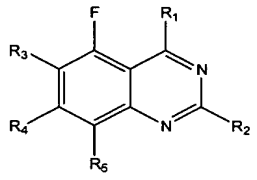


A-19

33. (Amended) A pharmaceutical composition comprising a quinazoline compound of any one of claims ~~26-32~~ 26, 27, 31 or 32 or salt thereof, and a physiologically acceptable carrier or diluent.

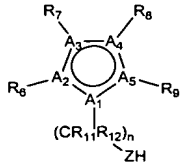
34. (Amended) A method for synthesizing a compound of claim 26, comprising the steps of:

(a) reacting a first reactant with a second reactant to yield said compound, wherein said first reactant has a structure of formula XI:

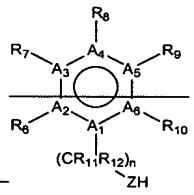


(XI)

and wherein said second structure has a structure of formula (XII) ~~or (XIII)~~:



(XII)



~~(XIII)~~

wherein,

(a) Z is oxygen or sulfur;

(b) n is 0, 1, 2, 3, or 4;

(c) $A_1$, $A_2$, $A_3$, $A_4$, and $A_5$ ~~and $A_6$~~ are independently selected from the group consisting of carbon, nitrogen, oxygen, and sulfur,

provided that if any of $A_1$, $A_2$, $A_3$, $A_4$ and $A_5$ is nitrogen, oxygen, or sulfur, said $A_1$, $A_2$, $A_3$, $A_4$ and $A_5$ is not substituted with $R_6$, $R_7$, $R_8$ or $R_9$;

(d) $R_1$ and $R_2$ are independently selected from the group consisting of:

(i) hydrogen;

(ii) saturated or unsaturated alkyl;

(iii) $NX_2X_3$, where $X_2$ and $X_3$ are independently selected from the group consisting of hydrogen, saturated or unsaturated alkyl, ~~and~~

(iv) halogen or trihalomethyl; and

(v) five-membered or six-membered heteroaryl ring moiety;

(e) $R_3$, $R_4$, $R_5$, $R_6$, $R_7$, $R_8$, and $R_9$ ~~and $R_{10}$~~ are independently selected from the group consisting of:

(i) hydrogen~~, provide that at least one of $R_3$, $R_4$, $R_5$, $R_6$, $R_7$, $R_8$, $R_9$ and $R_{10}$ is a non-hydrogen moiety if $R_2$ is $-NH_2$~~;

(ii) saturated or unsaturated alkyl~~, wherein said $R_8$ is not methyl when $R_2$ is $-NH_2$ and when n = 1~~;

(iii) $NX_{213}X_{143}$, where $X_{132}$ and $X_{143}$ are independently selected from the group consisting of hydrogen, saturated or unsaturated alkyl, and five-membered or six-membered aryl or heteroaryl ring moieties;

(iv) halogen or trihalomethyl~~, wherein said $R_8$ is not chlorine or fluorine when $R_2$ is $-NH_2$ and when n = 1~~;

(v) a ketone of formula $-CO-X_4$, where $X_4$ is selected from the group consisting of hydrogen, alkyl, and five-membered or six-membered heteroaryl or six-membered aryl ring moieties;

(vi) a carboxylic acid of formula $-(X_5)_{n5}-COOH$ or ester of formula $-(X_6)_{n6}-COOX_7$, where $X_5$, $X_6$, and $X_7$ and are independently selected from the group consisting of alkyl and five-membered or six-membered heteroaryl or six-membered aryl ring moieties and where n5 and n6 are ~~is~~ 0 or 1;

(vii) an alcohol of formula $-(X_8)_{n8}-OH$ or an alkoxy moiety of formula $-(X_8)_{n8}-OX_9$, where $X_8$ and $X_9$ are independently selected from the group consisting of alkyl

and five-membered or six-membered heteroaryl or six-membered aryl ring moieties and where n8 is 0 or 1, and where said ring moieties are optionally substituted with one or more substituents selected from the group consisting of alkyl, halogen, trihalomethyl, carboxylate, and ester;

(viii) $-NHCOX_{10}$, where $X_{10}$ is selected from the group consisting of alkyl, hydroxyl, and five-membered or six-membered heteroaryl or six-membered aryl ring moieties, wherein said ring moieties are optionally substituted with one or more substituents selected from the group consisting of alkyl, halogen, trihalomethyl, carboxylate, and ester;

(ix) $-SO_2NX_{11}X_{12}$, where $X_{11}$ and $X_{12}$ are selected from the group consisting of hydrogen, alkyl, and five-membered or six-membered heteroaryl or six-membered aryl ring moieties; and

(x) a five-membered or six-membered heteroaryl or six-membered aryl ring moiety optionally substituted with one or more substituents selected from the group consisting of alkyl, halogen, trihalomethyl, carboxylate, and ester moieties;

(f) any adjacent $R_3$, $R_4$, and $R_5$ or any adjacent $R_6$, $R_7$, $R_8$, and $R_9$~~, and $R_{10}$~~ are fused together for form a five-membered or six-membered aryl or heteroaryl ring wherein said five-membered or six-membered aryl or heteroaryl ring comprises two carbon atoms of the quinazoline ring to which $R_3$, $R_4$, and $R_5$ or $R_6$, $R_7$, $R_8$, and $R_9$ are attached;

(g) $R_{11}$ and $R_{12}$ are independently selected from the group consisting of

(i) hydrogen; and

(ii) saturated or unsaturated alkyl; and

(b) collecting a precipitate comprising said compound.

37. (Amended) The method of ~~any one of claims~~claim 34~~, 35, or 36~~ wherein said first reactant and said second reactant are mixed in one or more solvents selected from the group consisting of dimethyl sulfoxide, potassium tert-butoxide, and sodium hydride.